Attorney Docket No: P-3639P1

# Remarks

#### Status Of Claims

Claims 19-24, 26-55 and 61 - 63 are pending.

Claims 19-24, 26-55 and 61 - 63 stand rejected.

Claim 34 is herein canceled.

Claims 64 - 66 are newly submitted.

#### Amendments to the Claims

Applicants have amended claim 31 to correct an obvious redundancy.

Applicants have submitted new claims 64-66. Claim 64 is essentially equivalent to claim 39 restated in independent form. Claim 65 is drawn to the invention of claim 64 with the additional limitation that the incubation is carried out in slant tubes, as described in the specification at, for example, page 16, lines 14-16. Claim 66, dependent from claim 65, further specifies that at least 50,000 cells are analyzed, as described in the specification at, for example, page 7, line 16.

The amendments to the claims do not introduce new matter. Applicants request entry of the amendments into the record.

# The Rejection Under The Written Description Requirement Of 35 U.S.C. §112, First Paragraph

Claims 19-24, 26-55 and 61 - 63 were rejected under the written description requirement of 35 U.S.C. §112, first paragraph, for reasons of record, i.e., on the ground that the specification provides insufficient written description of the generic claim reciting the use of an inhibitor of cytokine secretion. Applicants traverse, in addition to the reasons of record, for the reasons set forth below.

#### Claim 39

Claim 39 is drawn to an exemplified embodiment of the present methods in which Brefeldin-A is used as an inhibitor of cytokine secretion. The grounds for the present rejection, recitation of the broad term "inhibitor of cytokine secretion," is not applicable to

claim 39. For this reason, Applicants believe that the rejection of claim 39 is in error and request withdrawal of the rejection of claim 39.

### Claims 19-24, 26-38, 40-55 and 61 - 63

Claims 19-24, 26-55 and 61 - 63 are drawn to novel methods for detecting antigenspecific T cells by detecting intracellular cytokines following stimulation of the T cells by culturing the sample with a nominal antigen. An inhibitor of cytokine secretion is used to allow intracellular cytokines to accumulate, thereby facilitating the detection of the intracellular cytokines. Both the specification (page 5, lines 15-17) and the originally filed claims (e.g., claim 13) describe the methods of the invention using an inhibitor of cytokine secretion, as currently claimed.

Despite the literal description of the claimed invention, which indicates that the inventors clearly conceived of the invention using "an inhibitor of cytokine secretion," Examiner maintains that this description is insufficient to convey to one of skill in the art that the inventors conceived of the invention using "an inhibitor of cytokine secretion." In particular, Examiner speculated on the large number of compounds that potentially could be encompassed by the term "inhibitor of cytokine secretion" and maintains that the specification must provide a description of which of these compounds, all unclaimed, would function in the invention. Applicants respectfully assert that the rejection is improper for at least the reasons discussed below.

1) The description need only describe in detail that which is new or not conventional (*Hybritech v. Monoclonal Antibodies*, 802 F.2d at 1384, 231 USPQ at 94 (Fed. Cir. 1986)). The rejection improperly requires Applicants to describe in detail an element which is neither new nor not conventional.

The present claims are drawn to novel methods for detecting antigen-specific T cells by detecting intracellular cytokines following stimulation by contact with a nominal antigen. An inhibitor of cytokine secretion is used to allow intracellular cytokines to accumulate, thereby facilitating the detection of the intracellular cytokines.

The closest prior art of record describes methods for detecting T cells activated in a non-specific manner by detecting intracellular cytokines following stimulation by contact

with a polyclonal stimulator. An inhibitor of cytokine secretion was used to allow intracellular cytokines to accumulate, thereby facilitating the detection of the intracellular cytokines. References of record that describe such methods, along with the particular inhibitor of cytokine secretion used, are provided in the table, below.

Inhibitor used	Reference (all of record)
Monensin	Jung et al., 1993, J. Immunol. Methods 159:197-207
Monensin	Elson et al., 1995, J. Immunol. 154(9):4294-4301
Monensin	Prussin et al., 1995, J. Immunol. Methods 188:117-128
Brefeldin-A	Picker et al., 1995, Blood 86:1408-1419
Brefeldin-A	Application Note 1: Detection of Intracellular Cytokines in Activated
& monensin	Lymphocytes, Becton Dickinson and Co.

Each of the references listed above describe methods in which an inhibitor of cytokine secretion is used to allow intracellular cytokines to accumulate in order to facilitate detection of the intracellular cytokines. Although the claimed methods are distinguished from these earlier methods both in specificity of activation and the subset of cells detected, the claimed methods include the use of an inhibitor of cytokine secretion for the same purpose, to allow intracellular cytokines to accumulate in order to facilitate detection of the intracellular cytokines. This particular element of the present invention is old in the art and conventional to one of skilled in the art of detecting intracellular cytokines.

Applicants assert that the rejection is improper and inconsonant with the legal standard as set forth in *Hybritech v. Monoclonal Antibodies* because it is based on an erroneous standard requiring Application to describe in great detail an element of the invention which is old in the art.

2) Where claims are drawn to a new use of known compounds and are *not* drawn to either novel compounds per se or to methods using novel compounds, the applicant is not required to discover all the compounds that would be useable in the claimed methods (*In re Fuetterer*, 138 USPQ 217 (CCPA 1963), discussed below). The rejection improperly requires Applicants to discover all the compounds that would be useable in the methods, whereas the claims are drawn to the methods, not the compounds themselves.

The present claims are to a method of detecting antigen-specific T cells that includes the use of an inhibitor of cytokine secretion, as was known in the art, not to the discovery of compounds useful as inhibitors of cytokine secretion. The Courts addressed an analogous situation in *In re Fuetterer* (cited above). Therein, claims drawn to a rubber stock composition useful in producing tire treads included a recitation of "an inorganic salt capable" of maintaining an homogeneous distribution of another component in the composition. The disclosure listed the function desired and four members of the class having that function. The claims had been rejected by the examiner as being overly broad ("inorganic salt" reads on literally thousands of materials, many of which would not be operative for applicant's purpose'. Ibid at 220). The board agreed, noting that rejection was based on "the inordinate breadth of the claimed salts when it is not apparent from the disclosure of only four salts what other salts would be suitable to serve the function asserted and required by the claims" (Ibid at 220, 221). However, the Court overturned the rejection and found the written description requirement to be satisfied:

Appellant's invention is the combination claimed and not the discovery that certain inorganic salts have colloid suspending properties. We see nothing in patent law which requires appellant to discover which of all those salts have such properties and which will function properly in his combination. The invention description clearly indicates that any inorganic salt which has such properties is usable in his combination. If others in the future discover what inorganic salts additional to those enumerated do have such properties, it is clear appellant will have no control over them per se, and equally clear his claims should not be so restricted that they can be avoided merely by using some inorganic salt not named by appellant in his disclosure.

Ibid at 138 USPQ at 223 (emphasis added). Applicants submit that the facts in the present case are analogous to those in *In re Fuetterer*.

As in *In re Fuetterer*, the present claims stand rejected in view of the large number of potential inhibitors of cytokine secretion, although the present claims are to a combination of steps (that includes the use of an inhibitor of cytokine secretion), <u>not</u> to the discovery of compounds that act as inhibitors of cytokine secretion. There is nothing in patent law that requires Applicants to discover which of all the potential inhibitors of cytokine secretion will function properly in the claimed methods. Furthermore, if others in the future discover another suitable inhibitor of cytokine secretion, the present claims

should not be so restricted that they can be avoided merely by using some inhibitor of cytokine secretion not described in the specification.

Applicants assert that the rejection is improper and inconsonant with the legal standard as set forth in *In re Fuetterer* because it is based on an erroneous standard requiring Applicants to discover which of all the potential inhibitors of cytokine secretion will function properly in the claimed methods<sup>1</sup>.

3) The rejection is improper because it ignores the standpoint of one of skill in the art. It is well established that in considering the sufficiency of the written description, the specification and claims are reviewed from the standpoint of one of skill in the art at the time of filing (e.g., *Wang Labs. v. Toshiba Corp.*, 993 F.2d 858, 865, 26 USPQ2d 1767, 1774 (Fed. Cir. 1993)). The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach (*In re Cortright*, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999)).

The claimed invention is a method of detecting antigen-specific T cells, and the specification must be read from the standpoint of one of skill in the relevant art, i.e., in the art of T cell detection. Within this art, inhibitors of cytokine secretion useful specifically in T cell detection methods were known at the time of the invention, and known to comprise two compounds, Brefeldin-A and monensin.

The understanding of one skilled in the art at the time of the invention is reflected in the references of record, discussed above, and, in addition, Liabakk et al., 1993, J. Immunol. Methods 163:145-154 (submitted by Fax April 29, 2002). The combined teaching of the prior art shows that "inhibitors of cytokine secretion" useful in T cell detection in general were known in the art, in particular that two species, monensin and Brefeldin-A, were known in the art, and that both of these inhibitors could be used for the same purpose in methods of detecting T cells.

Examiner failed to consider this understanding of one of skill in the relevant art in analyzing the claims. This failure to consider what one of skill would understand from the

<sup>&</sup>lt;sup>1</sup> Examiner stated that Applicants previously failed to address Examiner's points regarding speculated possible inhibitors of cytokine secretion. Applicants respectfully point out that Applicants' response that it is improper to require Applicants to discover which of all the potential inhibitors of cytokine secretion will function properly in the claimed methods, reiterated here, addressed these points.

actual claim language is apparent in Examiners speculation on a number of possible compounds that could act as an inhibitor of cytokine secretion: "It would seem that any agent that could block secretion of a protein from a cell (as cytokines are proteins) might be encompassed by the claims (Paper 40, §7, emphasis added). Examiner subsequently extended this improper reasoning even further: "This line of reasoning can be carried a step farther - would the claims encompass the use of an anti-sense nucleic acid that could inhibit cytokine secretion (by blocking the expression of proteins involved in secretion)?" (Paper 44, page 3, 3 paragraph). Examiner's reasoning ignores what one of skill would understand from the term "an inhibitor of cytokine secretion" in the context of the art of T cell detection. Applicants deliberately used the more specific phrase "an inhibitor of cytokine secretion." Although cytokines are proteins, they represent only a tiny subset of proteins, and the more specific reference to cytokines informs one of skill in the art of what kind of inhibitors would be useful. It is improper to analyze the claims by generalizing the terms used and ignoring what one of skill would understand from the actual claim language.

One of skill in the art would understand that, in the context of the art of T cell detection, the use of "an inhibitor of cytokine secretion" encompasses the use of one of the known inhibitors of cytokine secretion. Furthermore, it would be obvious to one of skill in the art that if others in the future discover other inhibitors of cytokine secretion additional to those known that have the property of being useful for the detection of T cells in general, that these compounds would function in the claimed methods. One of skill in the art would recognize from the description of the invention that Applicants conceived of methods using "an inhibitor of cytokine secretion".

#### New claims 64-66

New claims 64-66 recite the use of Brefeldin-A. For at least this reason, Applicants believe the claims 64-66 are free of the current rejection under the written description requirement of 35 U.S.C. §112, first paragraph.

# **Summary**

As noted above, both the specification and the originally filed claims describe the methods of the invention using an inhibitor of cytokine secretion, as currently claimed. This literal description of the claimed invention would convey to one of skill in the art that the inventors clearly conceived of the invention using "an inhibitor of cytokine secretion." There is a strong presumption that an adequate written description of the claimed invention is present when the application is filed (see In re Wertheim, 541 F.2d 257, 263, 191 USPQ) 90, 97 (CCPA 1976) ("we are of the opinion that the PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims" (emphasis added)). Applicants believe that this burden has not been met. When the standpoint of one of skill in the relevant art is properly considered, it is clear that one of skill would fully understand "an inhibitor of cytokine secretion" in the context of methods of detecting T cells. The use of an inhibitor of cytokine secretion for the function it serves in the claimed invention was known at the time of Applicants' invention; the specification need not describe this known element in detail to one of skill already in possession of this knowledge. Furthermore, Applicants are claiming a method of detecting antigen-specific T cells, not the discovery of compounds that act as inhibitors of cytokine secretion. Applicants need not discover which of all the potential inhibitors of cytokine secretion will function properly in the claimed methods. For these reasons and in view of the case law discussed above, Applicants submit that the specification fully meets the written description requirement.

Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 19-24, 26-55, and 61-63 under the written description requirement of 35 U.S.C. §112, first paragraph.

The Rejection Under The Enablement Requirement Of 35 U.S.C. §112, First Paragraph

Claims 19-24, 26-55, and 61-63 were rejected under 35 U.S.C. §112, first paragraph, for lack of enablement, based on the grounds that a disclosed critical limitation is missing from the claims. In particular, Examiner cited language in Example 4 as

teaching critical elements of the inventions that must be recited in the claims. Applicants traverse, in addition to the reasons of record, for the reasons set forth below.

Applicants respectfully submit that Examiner has erred by applying an improper legal standard to the determination of critical elements. Applicants first summarize the applicable legal standard, then discuss the particular elements of Example 4 and the rejection in view of the legal standard.

#### Legal Standard

Examiner cited *In re Mayhew*, 527 F.2d 1229, 1233, 188 USPQ 356, 358 (CCPA 1976) as supporting a rejection of claims for lack of enablement in the particular case that a feature is taught in the specification as critical and is not recited in the claims. Important to the present case is the proper standard for determining the criticality of a unclaimed feature.

In determining whether an unclaimed feature is critical, the <u>entire disclosure must</u> <u>be considered</u>. Broad language in the disclosure (including the abstract) omitting an allegedly critical feature tends to rebut the argument of criticality. Also, <u>features</u> that are merely preferred are not critical.

In re Goffe, 542 F.2d 564, 567, 191 USPQ 429, 431 (CCPA 1976). (citations removed, emphasis added). The Court recently clarified the interpretation of a critical element as discussed in *In re Mayhew*:

[The dissent] cites *In re Mayhew* for the proposition that "claims failing to recite a necessary element of the invention fail for lack of an enabling disclosure." There, however, the method claims omitted a step without which the invention as claimed was wholly inoperative (meaning it simply would not work and could not produce the claimed product).

Amgen Inc. v Hoechst Marion Roussel Inc. 65 USPQ2d 1385, 1403 (CAFC 2003) (emphasis added).

35 U.S.C. §112, first paragraph, sets forth that the specification, not the claims, must provide a written description sufficient to enable the invention. In particular, "it is the function of the specification, not the claims, to set forth the "practical limits of operation" of an invention" (*In re Johnson and Farnham*, 194 USPQ 187, 196 (CCPA 1977), citing *In re* Rainer, 134 USPQ 343, 346 (1962)) and, further, "[o]ne does not look to claims to find out how to practice the invention they define, but to the specification." (Ibid,

citing In re Roberts 176 USPQ 313, 315 (CCPA 1973) and In re Fuetterer, 138 USPQ 217 (1963)<sup>2</sup>).

# Example 4

Applicants previously pointed out the specification clearly indicates that the examples, including Example 4, describe preferred embodiments of the invention (see page 13, lines 16-17: "The examples illustrate certain <u>preferred embodiments</u> of the invention but are <u>not</u> intended to be illustrative of all embodiments" (emphasis added) and page 18, lines 13-14: "The specific embodiments are given by way of example only, and the invention is limited only by the terms of the appended claims."). Examiner responded by stating:

Again, it is noted that Example 4 in particular discloses that certain steps or reagents are "critical" and "required". These terms were chosen by Applicant for inclusion in the specification, not by the Examiner. Applicant may not now reasonably argue that which is disclosed as essential is not really so.

Office action dated 10/14/03, page 5, 2<sup>nd</sup> paragraph. Applicants respectfully assert that this reasoning is improper - any terms used in Example 4 were chosen by Applicants to describe "certain <u>preferred embodiments</u> of the invention" and are "<u>not</u> intended to be illustrative of all embodiments." Applicants chose to describe Example 4 as describing preferred embodiments; it is improper for Examiner to ignore the clear teaching of the specification. Features that are merely preferred are not critical.

Applicants further maintain that the language of Example 4 would convey to one of skill in the art preferred embodiments and practical limits of operation. In describing the establishment of a flow cytometric assay for the detection of antigen-specific T cell cytokine response, Example 4 describes four areas in which the antigen-specific methods of the invention differ from the prior art methods for analyzing T cell cytokine response to polyclonal stimulators: (1) the geometry of the T cell/accessory cell interaction (page 16, lines 13-16); (2) the timing of the addition of Brefeldin-A and the use of exogenous

<sup>&</sup>lt;sup>2 2</sup> In re Fuetterer, 138 USPQ 217 (CCPA 1963), which refers to the requirements of 35 USC §112 in terms of "sufficiency of disclosure," predates the line of cases in which the Court clarified the distinction between the written description and enablement requirements. Appellants believe that opinion of the Court is relevant to both the present rejection under the written description requirement and the present rejection under the enable requirement.

costimulation (page 16, lines 16-18); (3) gating on CD69 (page 16, lines 18-26); and (4) the number of events collected (page 16, line 26 to page 17, line 2).<sup>3</sup> These four points are discussed separately, below.

#### The geometry of the T cell/accessory cell interaction

In distinguishing antigen (Ag) responses to mitogen and superantigen responses, Example 4 states that "the geometry of the T cell/accessory cell interaction was critical for Ag responses; maximal responses were observed in slant tubes...." (page 16, lines 13-14). In this statement, the particular use of slant tubes, which provides a particular geometry of the T cell/accessory cell interaction, is described as maximizing the responses, not as a critical element without which the invention would not operate. A teaching of a way to maximize results represents no more than a teaching of a preferred embodiment. Features which are merely preferred are not to be considered critical.

# The timing of the addition of Brefeldin-A and the use of exogenous costimulation

Example 4 teaches that "responses were <u>maximized</u> when Brefeldin-A was omitted for the initial hour of interaction (...) and when exogenous costimulation<sup>4</sup> was provided." (page 16, lines 16-18, emphasis added). Both the timing of the addition of Brefeldin-A and the use of exogenous costimulation are described clearly as <u>maximizing</u> the results, not as critical elements without which the invention would not operate. A teaching of a way to maximize results represents no more than a teaching of a preferred embodiment. Features which are merely preferred are not to be considered critical.

# Assessment of CD69

Example 4 teaches that "precise detection of responding T cells was <u>enhanced</u> with inclusion of CD69 assessment in the multiparameter protocol." (page 16, lines 18-20, emphasis added). This use of CD69 is described clearly as <u>enhancing</u> the results, not as a

<sup>&</sup>lt;sup>3</sup> The last paragraph of Example 4 (page 17, lines 4-17) provides further guidance directed to a particular narrower embodiment of the invention in which the sample is whole blood. Appellants believe that is not relevant to the rejection.

<sup>&</sup>lt;sup>4</sup> As discussed in a previous response, costimulation inherently is provided by antigen presenting cells (APC) in the sample, making the addition of an <u>exogenous</u> costimulant unnecessary. The addition of an exogenous costimulant is used to maximize the response, not to enable the method.

critical element without which invention would not operate. A teaching of a way to enhance the results represents no more than a teaching of a preferred embodiment. Features which are merely preferred are not to be considered critical.

#### The number of events collected

Example 4 further describes that "because of the relatively small size of the Agspecific populations, accurate assessment of the responses required the routine collection and analysis of at least 50,000 events per determination (page 17, lines 1-2, emphasis added). Accuracy in the methods of the present invention relates to the statistical problem of distinguishing a small subpopulation of positive events (antigen-specific T cells) from the "noise" of detecting a vastly larger population of negative events. As is well known, the accuracy of a statistical test typically is improved by collection of a larger data set. Applicants maintain that teaching that relates to the accuracy of a method, not to the basic operability, represents guidance as to the practical limits of operation. It is a function of the specification, not the claims, to set forth the "practical limits of operation" of an invention.

Applicants further point out the Example 4 describes the establishment of methods to both detect/identify T cells and to quantify T cells (see page 16, lines 10-11 and line 5). In contrast, the present claims are directed to a method of detecting antigen-specific T cells. None of the claims specify that the detection must be quantitative or, in particular, that the method must achieve any particular level of accuracy. Although accuracy may be important for a particular application, such as a commercial application, the level of accuracy is not an element of the claimed invention. The number of events analyzed, which affects the quantitative accuracy of a method, cannot be considered a critical element for the present claims drawn to detection, not to accurate quantitation.

Applicants reiterate that the specification teaches that the methods carried out analyzing fewer events are enabled. In particular, Example 3 (page 15, lines 15-16) describes analyses carried out using only 48,000 events. Examiner erred by ignoring the teaching in the specification that clearly shows that the analysis of 50,000 events is not a critical feature.

### Teaching of the Specification as a Whole

Applicants previously pointed out that the specification describes the invention in broad terms omitting the allegedly critical features discussed in Example 4 (see, for example, page 4, lines 11-15, and in claim 1 as filed). Examiner failed to properly consider the broad language in the disclosure. In determining whether an unclaimed feature is critical, the entire disclosure must be considered.

#### Factual Evidence of Record

Applicants previously pointed to a reference of record, Suni et al.,<sup>5</sup> that provides factual evidence that refutes that assertion that elements discussed in Example 4 are critical elements without which the invention would be wholly inoperative. Suni et al., which is Applicants' first publication in a scientific journal of the methods of the present invention using whole blood samples, provides factual evidence demonstrating that the claimed methods are enabled without the use of slant tubes, without using CD69, and with analyzing fewer that 50,000 events. Examiner improperly dismissed this factual evidence based on his assumption that these elements are critical to the invention. Factual evidence of record that demonstrates enablement must be considered, even that generated after the filing date.

#### Inhibitor of cytokine secretion

Examiner previously stated that the specification and the post-filing art disclose/teach that the inclusion of an inhibitor of cytokine secretion is essential (Paper 20, page 5). Examiner most recently stated that "Applicant has not argued that an inhibitor of cytokine secretion is not essential. Accordingly, in this regard at least, Applicant appears not to traverse the rejection." (Office action dated 10/14/03, page 5, fourth paragraph). Applicants point out for the record that the specification (see page 5, lines 15-17) describes the use of an inhibitor of cytokine secretion as enhancing detection, not as an essential element. However, as the pending claims recite the use of an inhibitor of cytokine secretion, Applicants believe this point is moot relative to the present rejection and need not discuss it further.

<sup>&</sup>lt;sup>5</sup> Suni et al., 1998, J. Immunol. Methods. 221:89-98

For the record, Applicants wish to restate their position regarding Examiner's citation of O'Neil-Andersen and Lawrence<sup>6</sup> ("O'Neil-Andersen") for teaching functional differences between the known inhibitors of cytokine secretion, Brefeldin A (BFA) and monensin (MN) (Paper 40, §8). Examiner most recently stated that Applicants did not address these facts (Office action dated 10/14/03, page 5, fourth paragraph). O'Neil-Andersen, published well after the time of the present invention, describes the use of BFA and MN as inhibitors of cytokine secretion in flow-cytometric assays for the detection of intracellular cytokines following general activation of T cells in a non-specific manner (using PMA and ION). The methods described in O'Neil-Andersen are equivalent to the methods for detecting T cells after non-specific activation described in the art of record (cited above in response to the written description rejection). O'Neil-Andersen describes successful results using both BFA and MN, which only confirms what was known in the art at the time of the present invention, that BFA and MN are useful as inhibitors of cytokine secretion to allow intracellular cytokines to accumulate in activated T cells. While the focus of O'Neil-Andersen's study was on elucidating performance differences, the performance differences reported were differences between two successful methods and do not suggest that either is not a working embodiment of the methods. Nothing in patent law requires that all embodiments of an invention work equivalently. Performance differences between enabled embodiments are irrelevant to the question of enablement.

#### **Summary**

Applicants maintain that when properly considered in view of the specification as a whole, Example 4 does not teach critical elements without which the invention would be wholly inoperative, but rather teaches preferred embodiments of the invention and sets forth practical limits of operation. The entire disclosure must be considered. Features which are merely preferred are not to be considered critical, and it is a function of the specification, not the claims, to set forth the "practical limits of operation" of an invention. Even further, factual evidence of record, which must be considered, refutes the assertion that the elements discussed in Example 4 are critical to the operation of the invention. For the reasons discussed above and in view of the cited case law,

<sup>&</sup>lt;sup>6</sup> O'Neil-Andersen and Lawrence, 2002, Clin. Diag. Lab Immunol. 243-250

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Applicants assert that the rejection based on the grounds that a disclosed critical limitation is missing from the claims is without basis and should be withdrawn.

Applicants respectfully request reconsideration and withdrawal of the rejection of Claims 19-24, 26-55, and 61-63 under the enablement requirement of 35 U.S.C. §112, first paragraph.

# The Provisional Rejection Under the Judicially Created Doctrine of Obviousness-type Double Patenting

Claims 19-24, 26-55 and 61-63 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-37 and 39-40 of copending application number 09/526,253. Applicants reiterate that, as this is a provisional rejection, this issue will be addressed upon the finding of allowable subject matter in the '253 application.

# Conclusion

Applicants respectfully submit that all rejections have been traversed or rebutted and that the application is in condition for allowance. Applicants respectfully request that all pending claims be allowed.

Respectfully submitted,

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